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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/643,079

08/19/2003

Paul Neuman

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08/21/2007

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INTELLECTUAL PROPERTY ADMINISTRATION

FORT COLLINS, CO 80527-2400

EXAMINER

DADA, BEEMNET W

ART UNIT

PAPER NUMBER

2135

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/643,079	NEUMAN ET AL.	
	Examiner	Art Unit	
	Beemnet W. Dada	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in reply to an amendment filed on June 05, 2007. Claims 1, 7-17, 19 and 20 have been amended and new claims 23-25 have been added. Claims 1-25 are pending.

Response to Arguments

2. Applicant's arguments filed June 05, 2007 have been fully considered but they are not persuasive. Applicant argued that Chaiken (EP 1 072975) fails to teach a non-volatile storage medium including configuration data that describes a configuration of the non-volatile storage medium. Applicant further argued that, the BIOS stored on ROM 102 of Chaiken only includes configuration data of the components set up by the BIOS, such as RAM 106, disk drive 108, I/O 110 etc., and doesn't disclose ROM 102 to be configurable by the BIOS. Examiner disagrees.
3. Examiner would point out that the BIOS stored on ROM 102 of Chaiken is used to set up RAM memory 106, hard or floppy disk drives 108, input/output circuitry 110 and modem circuitry 112 [column 3, 30-34]. Furthermore, the BIOS includes verification data that is added at the end, middle or other location of the BIOS image [column 4, lines 23-33], and the purpose of the verification data is to allow BIOS to be flashed only if the BIOS image can be verified [column 4, lines 23-32]. It is understood by the examiner the verification data appended to the BIOS image is equivalent to a configuration data for configuring the flash ROM 102, since the verification data is used for flashing the flash ROM 102 with a new BIOS image after authentication of the verification data. Therefore, the BIOS stored on ROM 102 not only include configuration data for configuring the hardware devices indicated above, it also includes configuration data for configuring the ROM 102 (i.e., embedded authentication information in the BIOS, paragraphs

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0018 and 0022). Examiner would point out that the art on record teaches the claim limitations as indicated below and therefore, the rejection is respectfully maintained.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Chaiken EP 1072975 A2.

6. As per claims 1 and 24, Chaiken teaches a data processing system comprising a processor (CPU 104 of figure 1), a non-volatile storage medium (i.e., ROM) including configuration data that describes the configuration of the non-volatile storage medium (BIOS stored on ROM memory 102) [column 3, lines 24-27], a controller for managing data exchanges with the non-volatile storage medium and for invoking an uninterruptible software routine (i.e., invoking system management interrupt (SMI), column 6, 0028) in response to first software attempting to access the configuration data (i.e., attempting to update the ROM BIOS and generating software SMI) [column 6, paragraphs 0026-0028]; the uninterruptible software routine having code for determining whether the first software is authorized to access the configuration data and for allowing or preventing any such access according to the determination [column 6, paragraphs 0029-0031].

7. As per claim 15, Chaiken teaches a system comprising a processor (CPU 104 of figure 1), a first non-volatile storage medium having first and second firmware (i.e., new Flash Image and software SMI handler, see figure 3, 300, 312, 318) and a second non-volatile storage (i.e., ROM) medium for storing configuration data that describes the configuration of the second non-volatile storage medium (BIOS stored on ROM memory 102 of figure 1 or ROM BIOS 314 of figure 3) [column 3, lines 24-27]; the processor having a first mode of operation (i.e., real mode) for executing the first firmware and a second mode of operation (i.e., SMI mode) for executing the second firmware [columns 3-4, paragraph 0016-0017 and column 7, paragraphs 0035-0036]; the processor being arranged to enter the second mode of operation and execute the second firmware in response to the first firmware, executing in the first mode of operation, at least attempting to access the configuration data (i.e., attempting to update the ROM BIOS and generating software SMI) [column 6, paragraphs 0026-0028 and column 7, paragraphs 0034-0036]; the second firmware when executed by the processor, determines whether the first software is authorized to access the configuration data [column 6, paragraphs 0029-0031 and column 7, paragraphs 0036].

8. As per claims 16, 21 and 22, Chaiken teaches a method of controlling a data processing system, the system comprising a processor (CPU 104 of figure 1), first non-volatile storage storing first software and an uninterruptible software routine for executing within respective first and second modes of operation of the processor (i.e., new Flash Image and software SMI handler, see figure 3, 300, 312, 318), and a second non-volatile storage medium storing configuration data that describes a configuration of the second non-volatile storage medium (BIOS stored on ROM memory 102 of figure 1 or ROM BIOS 314 of figure 3) [column 3, lines 24-27]; the first software having associated identification data (i.e., flash signature, column 6,

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lines 0028]; the method comprising the steps of: executing the uninterruptible software routine, in the second mode of operation of the processor, in response to the first software, executing within the first mode of operation of the processor, at least attempting to access the configuration data; i.e., attempting to update the ROM BIOS and generating software SMI) [column 6, paragraphs 0026-0028 and column 7, paragraphs 0034-0036]; determining whether the first software is authorized to access the configuration data and controlling access to the configuration data according to that determination [column 6, paragraphs 0029-0031 and column 7, paragraphs 0036].

9. As per claim 2, Chaiken further teaches the system in which the first software is initialization software for initializing the data processing system [column 3, paragraph 0014].

10. As per claims 3 and 4, Chaiken further teaches the system wherein the configuration data comprises at least a portion of first data included in a data structure of the non-volatile storage medium [column 3, paragraphs 0014 and 0016].

11. As per claims 5 and 6, Chaiken further teaches the system wherein the configuration data comprises executable code [column 3, paragraphs 0014 and 0016].

12. As per claims 7-11, Chaiken further teaches the system wherein at least one of the configuration data and data associated with the first software are encrypted and the controller includes a decrypter of at least one of the configuration data and data associated with the first software, for decrypting the configuration data in response to determining the first software is authorized to access the configuration data [columns 4-5, paragraphs 0020-0022], and the

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uninterruptible software routine has an embedded signature for comparison with the software signature to determine whether the first software is authorized to access the configuration data [columns 4-5, paragraphs 0020-0022].

13. As per claim 12, Chaiken further teaches the system wherein the controller is adapted to, in response to any attempt by the first software to access the configuration data, trap said attempt and send an SMI interrupt to the processor, and the uninterruptible software routine includes a system management mode code executable within a constrained or protected operating environment for disabling the controller's trap in response to a determination that the first software is authorized to access the configuration data [column 6, paragraphs 0026-0028].

14. As per claim 13, Chaiken further teaches the system further including an operating system stored in the non-volatile storage medium, an operating system loader for loading an operating system for the data processing system and wherein the configuration data is arranged to provide access to the operating system loader to load the operating system for the data processing system from the non-volatile storage medium [figure 3].

15. As per claim 14, Chaiken further teaches the system wherein the first software is at least one of an operating system or application [figure 3].

16. As per claims 17 and 18, Chaiken further teaches the system wherein the uninterruptible software routine is executable only in the second mode of operation of the processor and includes accessing to authorization data that is only in the second mode of operation of the processor, and the step of determining comprises the steps of: comparing the identification data

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associated with the first software with the authorization data to determine whether or not they match, and authorizing access or otherwise to the configuration data according to the comparison [column 6, paragraphs 0029-0031 and column 7, paragraphs 0036].

17. As per claims 19 and 20 Chaiken further teaches the system further comprising the steps of subjecting at least the configuration data to a configuration data algorithm to produce second configuration data supporting access to the second nonvolatile storage medium [column 6, paragraphs 0029-0031 and column 7, paragraphs 0036].

18. As per claim 23, Chaiken further teaches the method wherein the uninterruptible software routine has code for hanging the data processing system in response to a determination that the first software is not authorized to access the configuration data [paragraphs 0030-0033].

Allowable Subject Matter

19. Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beemnet W. Dada whose telephone number is (571) 272-3847. The examiner can normally be reached on Monday - Friday (9:00 am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Beemnet W Dada

August 14, 2007



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